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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,123	02/16/2001	Jason Sodergren	DGI-103-PA	4159

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Philip R. Warn
Warn, Burgess & Hoffmann, P.C.
P.O. Box 70098
Rochester Hills, MI 48307

EXAMINER	
SHINGLES, KRISTIE D	

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 09/785,123	**Applicant(s)** SODERGREN, JASON	
	Examiner Kristie Shingles	**Art Unit** 2141	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 March 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: *None*.
   Claim(s) objected to: *None*.
   Claim(s) rejected: *1,4,6-9 and 12-16*.
   Claim(s) withdrawn from consideration: *2,3,10 and 11*.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

Continuation of 11.

Applicant's arguments filed 3/28/2005 have been fully considered but they are not persuasive, therefore the 35 U.S.C. 103 (a) rejections are sustained over the cited prior arts: Kumar et al (USPN 5,970,069), Kikinis (USPN 6,243,596), Treyz et al (USPN 6,526,335) and Parmee et al (USPN 5,659,471). The Examiner's remarks are below.

I. **Regarding claims 1 and 4** (which are independent and substantially equivalent), as stated in Applicant's Remarks, "Applicant submits that Kumar et al does not teach or suggest that the processor 34 can simultaneously communicate with the various devices using different protocols through the interfaces."

It is the Examiner's position, that *Kumar et al* teach a remote access processor that provides simultaneous connectivity to the SWAN interfaces wherein the SWAN interfaces provide connectivity to remote devices (col.4 lines 53-56). Furthermore, as depicted in Figures 2a and 3, *Kumar et al* teach that one of the SWAN interfaces is "a multi-protocol SWAN interface" (col.5 lines 24-28), which provides the capability to communicate with various devices using different protocols through the interfaces.

II. **Regarding claims 1 and 4** (which are independent and substantially equivalent), as stated in Applicant's Remarks, "...Kumar et al does not state that the SWAN interfaces 40, 42 and 44 are operating different protocols."

It is the Examiner's position, as stated above, that *Kumar et al* teach the SWAN interfaces operating different protocols. Yet, *Kumar et al* further disclose the, "SWAN interface 40 is a multi-protocol SWAN interface...SWAN interface 42 is a time division multiplexer serial interface for supporting ISDN-BRI networks...SWAN interface 44 is a V.34 CODEC interface for coupling to a V.34 CODEC modem" (col.5 lines 25-65).

III. **Regarding claim 1**, as stated in Applicant's Remarks, "...Kumar et al does not teach a daughterboard interface module, a plurality of daughterboard interface slots for accepting daughterboard interface modules, or even expanding the protocols that the remote access processor 34 can accommodate."

It is the Examiner's position, that *Kumar et al* teach "LAN and WAN port expansion, which allows connectivity to a diverse set of network interfaces" (col.5 lines 8-12, col.9 lines 49-56 and col.35 lines 3-14) when the remote processor is located in a PC or portable PC. The expansion of protocols that the remote access processor can accommodate is therefore implied by the provision of LAN and WAN port expansion, which includes LAN and WAN interfaces for supporting communication and connectivity via its implementation in a PC. The daughterboard is an obvious improvement-feature permissible with joining the circuitry of communication devices for providing expansion of and connectivity to a device's motherboard.

IV. **Regarding claim 4**, as stated in Applicant's Remarks, "...Kumar et al does not fairly teach or suggest a daughterboard interface module in a multi-protocol adapter in combination with all of a serial port with diagnostics and system maintenance, a flash socket for storage of system software, a connection of RAM, an interface for connection of system RAM, an interface for connection of mass-storage devices, a slot for connection of a peripheral, a socket for a battery for clock and configuration memory backup, an infrared serial interface and a piezoelectric speaker."

It is the Examiner's position that in accordance with *Kumar et al's* teaching of the remote processor being located within a PC or edge router, the following limitations are provisioned as follows: a serial port with diagnostics and system maintenance (col.6 lines 48-55; boundary scan circuit provides scan test functions, phase lock loop circuit provides the sequencing for the remote access processor's operations); a flash socket for storage of system software (col.6 line 56-col.7 line 11, col.8 lines 58-65 and col.9 lines 8-25; provision for flash memory); a connection of RAM (col.5 line 31-col.7 line 11, col.8$_2$lines 58-65 and col.9 lines 8-25; provision for RAM

connection); an interface for connection of system RAM (col.5 line 31-col.6 line 65, col.9 lines 8-25 and col.18 lines 33-51; interface for system RAM); an interface for connection of mass-storage devices (col.2 lines 1-25, col.5 lines 30-37 and col.6 line 56-col.7 line 24; interface for external memory); a slot for connection of a peripheral (col.1 lines 59-67, col.5 lines 30-65 and col.6 line 56-col.7 line 24; provision for serial peripheral interface and PCI interface); a socket for a battery for clock and configuration memory backup (col.5 lines 30-37, col.6 lines 38-65; battery back-up and clock inputs) and a piezoelectric speaker (col.25 lines 39-60; realized via V.34 interface and voice codec/DAA with a serial Voice Data path for digital samples from microphones and speakers).

The Examiner combined the teachings of *Kumar et al* and *Kikinis* for rejecting the limitation "an infrared serial interface" feature. Wherein *Kumar et al* fail to teach this specific feature, *Kikinis* discloses an infrared serial interface apparent on a battery pack adapter (col.19 lines 1-7), which supports the obviousness of the claim to include an infrared serial interface on an adapter device for compatibility with other devices communicating via an infrared interface. Therefore, *Kikinis* does supply the teaching missing from *Kumar et al* that proves the obviousness of applicant's claimed invention.

V. Referring to Applicant's remark, "...there is no motivation or suggestion in Treyz et al to combine a Linux operating system and a multi-protocol adapter."

In response to applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the primary reference relied upon, *Kumar et al*, fails to teach the limitation of claim 5, wherein the embedded operating system comprises a Linux operating system. However, the combined teachings of *Kumar et al* with *Treyz et al* achieve the 35 U.S.C. 103(a) rejection of claim 5. *Treyz et al* disclose an automobile personal computer system with support for the Linux operating system that also supports links using "any suitable protocols" (col.11 line 5-col.12 line 63 and col.18 lines 44-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Kumar et al, Kikinis* and *Treyz et al* for the purpose of extending the abilities of the system for compatibility with the Linux operating system interface; because the Linux operating system is a freely-distributed open source operating system offering a popular alternative to proprietary operating systems.

VI. Referring to Applicant's remark, "...Parmee et al does not teach or suggest an adapter simultaneously communicating with one or more computers running different protocols, and daughterboard interface slots and daughterboard interface modules for expanding the protocols of the adapter..."

The Examiner agrees that *Parmee et al* fail to teach or suggest an adapter simultaneously communicating with one or more computers running different protocols, and daughterboard interface slots and daughterboard interface modules for expanding the protocols of the adapter. Yet, *Parmee et al* is cited as a secondary reference in the 35 U.S.C. 103(a) rejection of claim 16 as teaching the limitation wherein the daughterboard interface modules are selected from the group consisting of SAJ185O, UBP, CCD, SCI, CAN, SAEJ1587, J1939, J2284, J2411, ISO 11992, 9141-2 and KWP2000 modules. As applied above, *Kumar et al*, the primary reference, is cited as teaching the simultaneous communication of the adapter with one or more computers running different protocols (col.4 lines 53-56, col.5 lines 8-65, col.9 lines 49-56 and col.35 lines 3-14). *Parmee et al* disclose use of a controller implemented within a vehicle compatible with the SAE J1922, SAEJ 1939 standards and other protocols (col.3 lines 28-31). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings from *Kumar et al, Kikinis* and *Parmee et al* to offer the extended functionality and abilities for the adapter/chip to support various types of vehicle interface protocols for integrating

the adapter into vehicle use.

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER